MICHIGAN ENVIRONMENTAL SCIENCE BOARD
LEAD PANEL

MEETING SUMMARY
THURSDAY, JUNE 30, 1994
NATURAL SCIENCE BUILDING, ENTOMOLOGY CONFERENCE ROOM
MICHIGAN STATE UNIVERSITY, EAST LANSING, MI

PANEL MEMBERS PRESENT:

Dr. Jonathan Bulkley, Chair
Dr. George Wolff
Mr. Keith Harrison, MESB Executive Director

PANEL MEMBERS ABSENT:

Dr. David Long
Dr. Raymond Demers

DMB/EAD SUPPORT STAFF PRESENT:

Ms. Shirley Willis, Administration Officer
Mr. Jesse Harrold, Environmental Officer
Mr. Alex Morese, Graduate Student Intern

I CALL TO ORDER:

Keith Harrison, Executive Director, called the meeting of the Michigan Environmental Science Board (MESB) Lead Panel to order at 1:20 p.m. Dr. Jonathan Bulkley, Chair, arrived at 1:30 p.m.

II EXECUTIVE DIRECTOR'S REPORT:

Mr. Harrison described material that had been distributed to the Panel. The package consisted of copies of five bills currently being considered in the Michigan House of Representatives concerning lead abatement and the proposed establishment of a comprehensive lead poisoning prevention program in the Michigan Department of Public Health (MDPH), as well as data from the MDPH blood lead pilot study and a compilation of results of blood lead tests performed at the Detroit Medical Center. He also announced a July 16, 1994 one day conference sponsored by the National Lead Abatement Council on lead remediation. The conference will be held at the Detroit Metropolitan Airport Ramada Inn. Mr. Harrison indicated that he will try to obtain a copy of the conference proceedings.

III PRESENTATION:

Dr. Kenneth Rosenman, Michigan State University - Department of Medicine, presented an overview of the concerns of occupational exposure to lead. A copy of his overheads are attached to this summary (see Attachment 1).

Dr. Rosenman began his presentation by listing current sources of industrial lead exposure - paint (in which lead pigment is still used) and paint removal, plastic cards and parts, batteries, telephone lines, poorly ventilated firing ranges, stained glass windows and other sources. Due to variations in state laws, it is difficult to obtain accurate data on the extent of elevated blood lead levels resulting from exposure to these sources. All states now require that blood lead levels of 25 ug/dl or greater be reported. Occupational exposures resulting in 50 ug/dl or greater must also be reported. However, not all states enforce the reporting requirements. According to Dr. Rosenman, Michigan is one of several states which does not actively enforce its blood lead level reporting regulation. In 1993, Michigan only reported 88 people (in 102 reports) with elevated blood lead levels. Of the 88 people reported, 55 came from 12 different companies; the remaining 33 cases were either not occupation-related or their employers were unknown. Fifty of the reports came directly from employers, 28 from laboratories, and ten from private physicians.

Dr. Rosenman indicated that within Michigan there are only 15 laboratories which do blood lead levels. Although Michigan's law requires laboratories to report elevated blood lead levels, most do not because the MDPH has never promulgated the necessary rules. A set of draft rules has been prepared by the MDPH. He suggested that the Panel may want to address this issue.

Dr. Rosenman indicated that in addition to ensuring regular reporting from laboratories, it is also important to regulate industrial reporting. Industries that should be testing their employees need to be identified. Data suggest that industries using large quantities of lead over an extended period are more likely to screen for exposure and to report. In California, for instance, 95% of storage battery manufacturers screened and reported, but fewer than 5% of automotive repair shops were testing their employees. Construction industries were added to the federal Occupational Safety and Health Administration (OSHA) lead standard in 1993, so paint removal and bridge repainting are now covered. Work place standards for lead are in place and are the most comprehensive of any occupational standard. Air monitoring, medical monitoring, and personal hygiene measures are all required.

According to Dr. Rosenman, companies using, manufacturing or processing lead are required to report to the U.S. Environmental Protection Agency (USEPA) if they used more than 10,000 pounds a year. There are currently 64 lead-using companies in Michigan reporting to the USEPA. Based on analysis of Michigan industries by Standard Industrial Classification (SIC) codes, Dr. Rosenman estimated that there are actually 1,400 companies in Michigan that should be reporting to the USEPA and conducting periodic employee screenings. According to him, it is a question of

identifying all the companies using lead, and of finding the resources for inspection and monitoring.

Dr. Wolff asked for a description of symptoms in adults with blood lead levels from 25 ug/dl to 60 ug/dl. Dr. Rosenman stated that beginning around 30 ug/dl, there are decreases in sperm counts and red blood cells, and neurobehavioral changes. His patients also report symptoms of not sleeping well and being irritable. He indicated that in the early 1970's the standard was dropped from 100 ug/dl to 80 ug/dl. The current level of 50 ug/dl was changed in 1977 or 1978 as a result of a compromise. Many thought it should be 30 ug/dl, the point where fertility, neurobiological, and red blood cell production effects are seen. Much of the support for the higher standard came from company physicians, who were not examining people with levels below 80 ug/dl, and so never saw the effects of lower levels. According to Dr. Rosenman, full industrial and laboratory reporting would identify thousands of people with levels from 50 ug/dl to 80 ug/dl and provide data that might allow a decision on whether the standard should be lowered even further.

Dr. Bulkley asked if occupational exposure to lead was a special problem for women, particularly women of childbearing age. Dr. Rosenman answered that in Michigan 82% of reported cases are men and in New Jersey, 93%. Based on the type of industries in which lead use is most likely, men were more likely to be affected.

Mr. Harrison inquired about the difference between Michigan and New Jersey in terms of enforcement. Dr. Rosenman stated that he thought that Michigan's problem may be the lack of rule promulgation.

Ms. Vandenbosch (MDPH) stated that the MDPH does not receive the necessary data with the blood samples to enable it to perform a surveillance service for blood lead, even though the MDPH receives up to 100,000 blood test samples a year. A lot Michigan's blood lead testing is done out of state. The blood lead level reporting of children is better than for adults.

Dr. Rosenman stated that companies tend to be good about reporting blood lead levels; however, there is a certain percentage of Michigan companies which do not report. For example, Dr. Rosenman referred to a national auto manufacturing company and numerous lead battery manufacturers that conduct routine blood lead level screenings in Michigan but do not report their findings to the MDPH. There are state and federal laws in place which require reporting of all incidences of toxic substance poisonings; however, the only place where reports are issued upon request without difficulty is from a hospital records room.

Other states, namely New Jersey, New York and Texas have had effective data collecting procedures in place for more than nine years. The state data are being utilized by the National Institute of Occupational Safety and Health (NIOSH) under its "ABLE" program. Dr. Rosenman indicated that he did not know where the adult blood lead levels goes when MDPH receives them. Ms. Vandenbosch indicated that MDPH

sends the adult blood lead findings from the reporting laboratories to MDPH's Bureau of Environmental and Occupational Health.

Dr. Wolff asked if inhalation is the main source of high blood lead levels in adults and if the blood lead level is related to the threshold level in the air. Dr. Rosenman replied that inhalation is the main source of high blood lead levels in adults, but ingestion is sometimes a contributing factor. The blood lead levels are directly related to the air lead in the work place. The target standards for industries are either 50 ug/dl or 100 ug/L with an action level of half the applied target standard level.

Dr. Bulkley asked if there should be a concern about transporting lead from the work place to the home. Dr. Rosenman stated that lead transported from the work place does contribute to higher blood lead levels in children, but does not appear to elevate blood lead level to the toxic level by itself.

Dr. Bulkley asked if the 88 reported adult lead patients in Michigan per year is an expected number. Dr. Rosenman indicated that his calculations show that Michigan's reporting of adult blood lead patients should be between 800 and 1500 per year.

Dr. Wolff asked if the route of information reporting for adults was from the laboratories to MDPH to OSHA. Ms. Vandenbosch replied that when MDPH receives blood lead data with no age attached, it obtains the age. The findings are then sent to MDPH's Bureau of Environmental and Occupational Health which in turn sends it to OSHA.

Mr. Morese inquired if there was a specific format information for the laboratories to follow in providing the blood lead levels to MDPH. Ms. Vandenbosch stated MDPH issued a letter listing the data needs and a disc format for reporting. MDPH has received no reports to date.

Ms. Vandenbosch asked Dr. Rosenman if the states that have mandatory reporting from laboratories already have laws in place. Dr. Rosenman responded that New Jersey enacted a law and promulgated rules in 1985. Ms. Vandenbosch stated that Michigan's rules are not promulgated, however, she thinks that process is taking place now so that laboratories will be required to report. She indicated that MDPH has visited other states and observed their surveillance techniques; however, it is difficult to enforce in Michigan without mandatory requirements.

Dr. Bulkley inquired about the status of MDPH's administrative rules. Ms. Vandenbosch indicated that she would find out if the MDPH Rules Subcommittee chair could come and address the Panel. She stated that version number nine of the draft rules is currently under review.
Dr. Wolff asked when was the law passed. Dr. Rosenman indicated that the law is a standard laboratory question that is mixed in with communicable disease reporting. Ms. Vandenbosch interjected that the law had been removed from the communicable disease reporting, and the first draft for the rules began this year. Dr. Rosenman stated

that the issue has been addressed by previous administrations over the past five or six years, but they could not get together to get the rules through.

Dr. Bulkley asked Dr. Rosenman to suggest the states that the Panel should contact. Dr. Rosenman responded that the most experienced states are New Jersey, New York and California. Dr. Rosenman also suggested that the federal NIOSH coordinator be contacted also.

Dr. Jackie Scott (MDPH) went on record that she is in agreement with Dr. Rosenman that the easiest way to get data is to have laboratories report.

Mr. Jesse Harrold (DMB/EAD) commented and a discussion followed on the advantage of requiring just age and sex information on samples. Ms. Vandenbosch indicated that something similar is being proposed where certain fields of data will be required in order to process the samples. Dr. Rosenman commented that the patient's name is also important since it can be used to identify individuals with multiple reports.

Dr. Bulkley thanked Dr. Rosenman for his presentation and comments to the Panel. He indicated that as a result of the presentation, the Panel will be working on several issues including contacting other states about their blood lead level screening and surveillance programs, and NIOSH, which should be knowledgeable about these issues at the federal level.

Dr. Bulkley asked the staff to find out the location of the regional lead training centers that were being established in 1992, what they are doing, and who is conducting the study on urban hot spots. He also ask that the staff find out the results of work being done on a long-term research effort to target exposure and reduce risk from major sources of lead. Dr. Bulkley also asked that staff obtain a copy of a recent report from the General Accounting Office (GAO). Mr. Harrison stated the GAO report is not available yet.

IV PUBLIC COMMENT AND QUESTIONS

Dr. Scott commented on concerns that she had regarding the April 25, 1994 MESB Lead Panel Meeting Summary. Dr. Scott referenced pages 40, 41 and 49 of the summary where information provided to the Panel by Dr. Jerome Nriagu indicated problems with quality control and sample contamination in state laboratories. She pointed out that in her follow-up with the Center for Disease Control (CDC), they had not heard of lead contamination with stainless steel needles. In regards to quality control, she pointed out that MDPH's laboratory follows CDC's guidelines for sampling and processing specimens. She further stated that the lab follows the "CLIA 88 Rules" and are certified and accredited by the American Industrial Hygiene Association for processing environmental samples.

Ms. Vandenbosch stated that a comment had been attributed to her on page 2 of the May 16, 1994 MESB Lead Panel Meeting Summary regarding physicians' attitudes

towards lowering of the ug/dl standard. She indicated that the physician attitudes towards the lowering of the standard was published in the American Academy of Pediatrics News and did not come directly from her. She also clarified the last paragraph on the first page of the summary where it states that the CDC program was initiated in Michigan in January 1993. She pointed out that the grant was awarded July 1, 1992, and staff were hired in November 1992.

Ms. Kathi Wurzel inquired about the due date of June 30th for the Lead Panel report. Mr. Harrison commented that, though the Panel will not complete the report by that date. It is important that adequate time is allowed to obtain information and digest it before finalizing the report.

V PANEL ASSIGNMENTS:

Panel members indicated that they were still in the process of obtaining data for their portions of the report and had not yet begun to draft their sections of the report.

VI ADJOURNMENT:

The meeting was adjourned at 3:15 p.m.

Keith G. Harrison, M.A., R.S., Cert. Ecol.
Executive Director
Michigan Environmental Science Board